QUALITY ASSURANCE/QUALITY CONTROL
SM 3020 - 2005 *(As published in SM 22nd Edition)*

Facility Name:_____VELAP ID_____

Assessor Name:_____Analyst Name:_____Inspection Date_____

Relevant Aspect of Standards		Method Reference	Y	N	N/A	Comments
(1) Were MDLs (LODs) initially determined for each analyte according to the procedure in SM 22nd 1030 C, or procedure prescribed by regulatory authorities, or other applicable procedure (See 3020 B.1.b)? NOTE: Not required when test results are not reported outside of the calibration range (2003 NELAC Chapter 5 Appendix D.1.2.1).		3020 B.1.b				
2) Were MDLs verified for each new analyst?	NOTE: Items 2, 3, and 4 are not required when test results are not reported outside of the calibration range (2003 NELAC Chapter 5 Appendix D.1.2.1).	3020 B.1.b				
(3) Were MDLs verified whenever instrument hardware or operating conditions were substantially modified?		3020 B.1.b				
(4) Were MDLs determined annually, for each analyte and method?		3020 B.1.b				
NOTE: Items 5, 6, 7, and 8 may be omitted when a laboratory performs daily multiple-point calibrations bracketing samples and QC checks. (5) Was the Linear Dynamic Range (LDR) determined before using a new method as part of the Initial Demonstration of Capability?		3020 B.1.c				
(6) Was the LDR determined by successive analyses of higher concentration of standards until the results were less than 90% of the target value?		3020 B.1.c				
(7) Was the LDR verified whenever there were significant changes in instrument conditions or analytical process?		3020 B.1.c				
(8) Were the instrument calibration ranges within the instrument LDRs?		3020 B.2.a				
(9) If not specified in a method, were at least 3 standards plus a blank used for calibration?		3020 B.2.a				
(10) Were correlation coefficients greater than or equal to 0.995 for analyses using multiple standards for a least-squares fit calibration?		3020 B.2.a				
(11) For ICP-AES analyses, were the acceptance criteria of second-source standards between 95% and 105% of expected values? ("*should*")		3020 B.2.b				
Notes/Comments:						

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Relevant Aspect of Standards	Method Reference	Y	N	N/A	Comments
(12) For technologies other than ICP-AES, were the acceptance criteria of second-source standards between 90 % and 110% of expected values?	3020 B.2.b				
(13) Were the acceptance criteria of the Initial Calibration Verification (ICV) between 95% and 105% of the expected values?	3020 B.2.c				
(14) Were the acceptance criteria of Continuing Calibration Verifications (CCVs) between 90% and 110%?	3020 B.2.d				
(15) Did the laboratory verify at each calibration that the instrument was capable of quantifying at the reporting limit?	3020 B.2.e				
(16) Was the Reporting Limit Check Solution (RLCS) analyzed after calibration but before any sample analyses?	3020 B.2.e				
(17) Were the acceptance criteria of the RLCS between 50% and 150%? ("*should*")	3020 B.2.e				
(18) Was a field blank used to assess whether analytes or interference could have contaminated the samples during the sampling process?	3020 B.2.g				
(19) Did standard used for Laboratory Fortified Matrix (LFM) spiking add less than or equal to 5% of sample volume?	3020 B.2.h				
(20) Were LFM recoveries between 70 and 130% of the fortified value? (*"should"*)	3020 B.2.h				
(21) Were LFM and LFMD pairs used to evaluate accuracy and precision?	3020 B.2.h				
(22) Were the percent differences between LFM and LFMD less than 20%? (*"should"*)	3020 B.2.h				
(23) Was an LFM/LFMD pair included with every 20 samples?	3020 B.2.h				
(24) Were LFMs fortified before sample preparation?	3020 B.3.c				
(25) Were Laboratory Fortified Blank (LFB) concentrations prepared at approximately the mid-point of the calibration curve?	3020 B.3.b				
Notes/Comments:					